

On the Australasian Chelidae (Chelonia)

by E. H. BLACKMORE

Boulenger's Catalogue (1889) has for many years been a standard taxonomic work on the Australian Reptilia, and on the Chelidae in particular. However, it has now become apparent that the principles on which that work was based are largely out of date. This article is an attempt to tentatively revise the interspecific relationships of certain members of this group.

There can be little doubt that *Chelodina fitzinger* is much the most distinct Australasian chelid genus. In its very large cervical length, small parietals, weak mandible, enclosed intergular and four-clawed manus, *Chelodina* is set off sharply from the other three genera, *Emydura*, *Elseya* and *Pseudemydura*. Consequently its generic status cannot be questioned.

Goode (1967) transferred *latisternum* and the related *novaeguineae* from *Emydura* to *Elseya*. His definition of *Elseya* is to some extent preferable to that of, for example, Wermuth and Mertens (1961), and has been adopted here, but I am inclined to think the *Elseya* and even *Pseudemydura* cannot be maintained as generically distinct from *Emydura*. The differences between these genera (in intergular size, rugosity of neck skin, etc.) are certainly differences of degree only, while, as Goode (1967) has pointed out, presence or absence of a median alveolar ridge is not a character of major importance. However, I have retained Goode's arrangement, for the present at least.

Chelodina fitzinger

1826. *Chelodina fitzinger*. Type *Testudo longicollis* Shaw.

This genus includes two more or less well defined groups, typified by *C. longicollis* and *C. oblonga*. There is no evidence that the two groups contain more than a single species each.

Chelodina longicollis (Shaw).

1793. *Testudo longicollis* Shaw. New Holland = nr. Sydney, N.S.W.

1835. *Chelodina novae-hollandiae* Dumeril & Bibron. New name for *longicollis* Shaw.

1855. *Chelodina sulcifera* Gray. Australia.

1856. *Chelodina sulcata* Gray. Australia.

1888. *Chelodina novae-guineae* Boulenger. Katav R., Papua.

1914. *Chelodina steindachneri* Siebenrock. Marloo Station, DeGrey R., W.A.

1922. *Chelodina milly-millyensis* Glavert. Milly-Milly Ck., Murchison R., W.A.

Geographically, *longicollis* has a Basso-Torresian distribution somewhat similar to that of the terrestrial marsupial *Petaurus breviceps* Waterhouse. The species probably exhibits only clinal variation; in texture of dorsal

neck skin, degree of recurving of marginals, depth of carapace and plastral width, *novaeguineae* is intermediate between *longicollis* s.s. and *steindachneri*. Consequently no subspecies are here recognized.

Range: northern and eastern Australia, south in the east to Adelaide, and in the west to Geraldton; not as yet recorded from the Kimberleys; southern New Guinea; Roti, nr. Timor; doubtless elsewhere in Indonesia.

Chelodina oblonga Gray.

If *Chelodina longicollis* poses unusual taxonomic problems, *C. oblonga*

C. oblonga oblonga Gray.

1841. *Chelodina oblonga* Gray. Western Australia = nr. Perth.

1855. *Chelodina colliei* Gray. Swan R., W.A.

South-western Australia from Moore R. to Albany.

C. oblonga expansa Gray.

1857. *Chelodina expansa* Gray. Australia.

Murray-Darling Basin: western N.S.W., northern Vic., south-eastern S.A., southern Qld.

C. oblonga rugosa Ogilby.

1890. *Chelodina rugosa* Ogilby. Cape York, Qld.

1915. *Chelodina intergularis* Fry. Australia.

Arnhem Land; northern Qld.

C. oblonga siebenrocki Werner.

1901. *Chelodina siebenrocki* Werner. German New Guinea. New Guinea.

Elseya Gray.

1867. *Elseya* Gray. Type *Chelymys dentata* Gray.

Only two species of *Elseya* will be recognized here, as *latisternum* and *novaeguineae* contrast with *dentata* in having a more V-shaped rostrum, no-alveolar ridge, pointed cervical tuber-

cles and a broader carapace; the depressed and posteriorly serrated carapace of *latisternum* may possibly be a pedomorphic character.

Elseya dentata (Gray).

1863. *Chelymys dentata* Gray. Victoria R., N.T.

1871. *Euchelymys sulcifera* Gray. North Australia.

Judging from the available information, it seems probable that *dentata* is continuously distributed in northern Australia. This is the typical Torresian distribution pattern; it has been customary to distinguish subspecies within species of this type on a politico-

geographical basis, but closer study usually reveals clinal variation only. Most occur in New Guinea, though *Pseudomys delicatulus* (Gould) is an exception.

Range: probably throughout northern Australia from Gympie to Broome.

Elseya latisternum Gray.

E. latisternum latisternum Gray.

1867. *Elseya latisternum* Gray. C. York, Qld.

1871. *Euchelymys spinosa* Gray. N. Australia.

1931. *Emydura signata* Ahl. Brisbane, Qld.

North-eastern Australia, south to about Grafton.

E. latisternum novaeguineae (Meyer).

1874. *Platemys novae-guineae*. Meyer. New Guinea.

1911. *Emydura schultzei* Vogt. German New Guinea = Tami, N.E. New Guinea.

1914. *Emydura branderhorsti* Ouwens. South New Guinea.
Throughout New Guinea.

Emydura bonaparte.

1836. *Emydura bonaparte*. Type *Hydraspis macquarrii* Gray.

Apart from the dubious *E. australis*, case of *Chelodina*, it is impossible to only one species seems to be included justify the specific status currently in the genus: *E. macquarrii*. As in the given to other taxa.

Emydura macquarrii (Gray).

Some authors have regarded *krefftii* as merely a clinal variant of *macquarrii*; but as the Great Dividing

Range should provide an effective distribution barrier, *krefftii* is probably subspecifically distinct.

E. macquarrii macquarrii (Gray).

1831. *Hydraspis macquarrii* (sic) Gray. Macquarie R., N.S.W. Murray Basin; western N.S.W., northern Vic., south-eastern S.A.

E. macquarrii krefftii (Gray).

1871. *Chelymys krefftii* Gray. Burnett R., Qld.
North-eastern Australia south to Kempsey, N.S.W.

E. macquarrii subglobosa (Krefft).

1876. *Euchelymys subglobosa* Krefft. Amama R., Papua.

1888. *Emydura albertisii* Boulenger. Katau R., Papua.
Throughout New Guinea.

? Emydura australis (Gray).

1841. *Hydrospis australis* Gray. Western Australia.

1842. *Hydraspis victoriae* Gray. Victoria R., N.T.

A revision of this species would be beyond the scope of this work. The maxilla, uniquely, extends back to totally cover the vomer, which casts doubt on its placing in *Emydura*; in view of colour and morphological variation, more than one species may be included here; while it has often been confused with *E. macquarrii krefftii*, which is superficially similar. However, some preliminary comments on the distribution will be given here.

Typically, *australis* occurs in the rivers of the Northern Territory and north-western Australia; I have no doubt that it also occurs in Queensland, where, however, it has been confused with *krefftii*. Mehely (1898) recorded what was probably this species from Papua, under the name of *krefftii*; it is also known from Cooper's Creek, in South Australia.

This central population is interest-

ing, but not unique, since two Torresian mammals—*Lagorchestes conspicillatus* Gould and *Rattus tunneyi* (Thomas)—are also recorded from the central region. However, neither is known to occur in New Guinea, which suggests that the Cooper's Creek and

Papuan populations of "*E. australis*" may not be conspecific.

Range: probably throughout northern Australia, though not recorded east of Normanton, Qld.; Cooper's Ck., S.A.; Astrolabe Bay, Papua, and doubtless elsewhere in New Guinea.

***Pseudemydura siebenrocki*.**

1901. *Pseudemydura siebenrocki*. Type *Pseudemydura umbrina* Siebenrock.

***Pseudemydura umbrina* Siebenrock.**

1901. *Pseudemydura umbrina* Siebenrock. Western Australia.

1954. *Emydura inspectata* Glauert. Bullsbrook, W.A.

Williams (1958) has convincingly demonstrated the specific identity of *umbrina* and *inspectata*.

Range: south-western Australia from Moore R. to Albany.

SUMMARY

The nomenclature of the Australasian Chelidae is reviewed in accordance with modern taxonomic principles. A number of species recognized by most recent authors are synonymized with *Chelodina longicollis* (Shaw), *C. oblonga* Gray and *Emy-*

dura macquarii (Gray). The generic status of *Euseya* Gray and *Pseudemydura* Siebenrock is questioned. *Euseya novaeaguinae* (Meyer) is relegated to subspecific status under *latisternum* Gray. No revision of *Emydura australis* (Gray) is attempted.

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